

**WHAT IS CLAIMED IS:**

- 1        1.        A coating for application onto a wellbore screen comprising:
  - 2                    a chemical binder, at least one reactive material mixed with said
  - 3                    chemical binder so that the reactive material is released from the
  - 4                    binder when the binder and reactive material are inserted into a
  - 5                    wellbore.
- 1        2.        A coating according to Claim 1 wherein the chemical binder is selected
  - 2                    from one or more of the following materials: high melting point surfactants,
  - 3                    high melting point waxes, high melt point organic acids, polymer blends,
  - 4                    blends of high melting point surfactants and waxes, blends of surfactants
  - 5                    and wax, and blends of surfactants and organic acids, blends of waxes
  - 6                    and organic acids.
- 1        3.        A coating according to Claim 2 wherein the chemical binder has a melting
  - 2                    point between 120 degrees Fahrenheit to 275 degrees Fahrenheit.
- 1        4.        A coating according to Claim 1 wherein the chemical binder is selected
  - 2                    from one or more of the following materials: a paraffin, an ethoxylated
  - 3                    dinonyphenol and nonyphenol branched nonionic surfactant, an

4 alkyphenol ethoxylate, a blend of polyethylene and copolymer waxes, a  
 5 blend of surfactant and wax, a blend of surfactant and organic acids, a  
 6 blend of wax and organic acid, polyglycolic acid, and glutaric acid.

1 5. A coating according to Claim 1 wherein at least one reactive material is  
 2 selected from one or more of the following materials: chelants, organic  
 3 acids, enzymes, free radical generators, oxidizing agents, and  
 4 combinations of organic acids with ammonium bifluoride.

1 6. A coating according to Claim 1 wherein at least one reactive material is  
 2 selected from the following materials: disodium salt of  
 3 ethylenediaminetetraacetic acid, dipotassium salt of  
 4 ethylenediaminetetraacetic acid, diammonium salt of  
 5 ethylenediaminetetraacetic acid, and tetrasodium salt of  
 6 ethylenediaminetetraacetic acid.

1 7. A coating according to Claim 1 wherein at least one reactive material is  
 2 selected from one or more of the following materials:  
 3 ethylenediaminetetraacetic acid, glutaric acid, ascorbic acid, erythorbic  
 4 acid, sulfamic acid, citric acid, fumaric acid, magnesium peroxide, and  
 5 calcium peroxide.

- 1        8.        A coating according to Claim 1 wherein at least one reactive material is a  
2                    polymeric form of glycolic acid which has a melting point between 120  
3                    degrees Fahrenheit and 250 degrees Fahrenheit.
  
- 1        9.        A coating according to Claim 1 wherein at least one reactive material is an  
2                    enzyme capable of degrading xanthan gum.
  
- 1        10.       A coating according to Claim 1 wherein at least one reactive material is an  
2                    enzyme capable of degrading natural or chemically modified starches.
  
- 1        11.       A coating according to Claim 1 wherein at least one reactive material is an  
2                    enzyme capable of degrading derivatized cellulose.
  
- 1        12.       A coating according to Claim 1 wherein at least one reactive material is an  
2                    enzyme capable of degrading natural or derivatized guar gum.
  
- 1        13.       A coating according to Claim 1 wherein at least one reactive material is  
2                    selected from one or more of the following materials: sodium persulfate,  
3                    ammonium persulfate, and potassium persulfate.

- 1 14. A coating according to Claim 1 wherein at least one reactive material is an  
2 organic acid with a melting point between 120 degrees Fahrenheit to 275  
3 degrees Fahrenheit in combination with ammonium bifluoride.
- 1 15. A coating according to Claim 1 wherein the binder and reactive materials  
2 consist of glutaric acid, the disodium salt of ethylenediaminetetraacetic  
3 acid, ascorbic acid and a blend of cellulase and mannanase enzymes.
- 1 16. A coating according to Claim 2 wherein at least one reactive material is a  
2 chemical capable of dissolving calcium carbonate.
- 1 17. A coating according to Claim 16 wherein at least one reactive material is  
2 selected from the following materials: chelants, organic acids, and  
3 combinations of organic acids with ammonium bifluoride.
- 1 18. A coating according to Claim 2 wherein at least one reactive material is  
2 capable of degrading polymers or starches.
- 1 19. A coating according to Claim 18 wherein said at least one reactive  
2 material is selected from the following materials: an organic acid, a  
3 combination of organic acids with ammonium bifluoride, an oxidizing

- 4 agent, materials which can cause the production of free radicals, and an
- 5 enzyme.

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